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Transmittal of Appeal BriefDocket No.
H2041.0062

In re Application of: Kouji SHIRAI

Application No.	Filing Date	Examiner	Group Art Unit
09/878,107	June 8, 2001	M.D. DAO	2682

Invention: PORTABLE TELEPHONE SET

TO THE COMMISSIONER OF PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed: August 17, 2005.

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Dated: October 17, 2005

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Express Mail No.: EV 215888937
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Kouji Shirai

Confirmation No.: 2375

Application No.: 09/878,107

Art Unit: 2682

Filed: June 8, 2001

Examiner: MINH D. DAO

For: PORTABLE TELEPHONE SET

Docket No.: H2041.0062

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under 37 C.F.R. § 41.37(a), this Appeal Brief is filed within two months of the Notice of Appeal filed in this case on August 17, 2005, and is in furtherance of said Notice of Appeal. The fees required under 37 C.F.R. § 41.20(b)(2) for filing this Brief are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This Brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

- I. Real Party In Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal
- VII. Argument

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Appendix A Claims Involved in the Appeal

Appendix B Evidence

Appendix C Related Proceedings

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is NEC Corporation.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 3 to 12 are pending in the subject patent application. Claims 1 and 2 were canceled. Claims 3 to 12 were finally rejected in the Examiner's Office Action dated April 19, 2005 (the "Final Action"). Claims 3 to 12 are on appeal.

IV. STATUS OF AMENDMENTS

Applicant filed an *Amendment In Response To Final Office Action* on July 14, 2005. This *Amendment* does not contain any amendment to the claims. No claim amendments have been made subsequent to the Final Action. Accordingly, the claims enclosed herein as Appendix A reflect the status of the claims on and before April 19, 2005.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to a portable telephone in which bugs in its main program can be corrected at the user's end and a method for correcting such bugs (errors). The portable telephone has a read only memory (see, e.g., ROM section 1) in which the

main program is stored and a volatile memory (see, e.g., RAM section 2). See, Figure 1. According to the claimed invention, a bug fix patch is loaded into the volatile memory where a back up of the bug fix patch is created (see, e.g., page 5, lines 15-16). Accordingly, two copies of the bug fix patch are required in the claimed invention. The back up copy is then stored in the read only memory or used to correct a bug in the read only memory (see, e.g., page 5, lines 18-19).

The operation of the present invention is illustrated by the flow chart shown in Figure 2. For the sake of brevity, only the operation in connection with the claimed subject matter is discussed below.

After power supply to the portable telephone set is switched on, the telephone set checks the ROM section in step 201. If no error is detected, then the processing advances to step 202. In step 202, it is discriminated whether or not a patch for the ROM section 1 is stored in the RAM section 2. If the patch for the ROM section 1 is detected in step 202, then the processing advances to step 203, in which the state of a write flag is checked. If the write flag is "0" (default), then the processing advances to step 204, in which the portable telephone set stores the patch for a ROM block into the RAM section 2 to backup the patch. Thereafter, the portable telephone set enters an initial program load mode in step 205, and writes the patch backed up in the RAM section 2 into a corresponding block of the ROM section 1 in step 206. (See, page 5, lines 1-19.)

On the other hand, if an error is detected in step 201, the processing advances to step 208, where the portable telephone set starts an error process. Then in step 209, the portable telephone set checks the write flag. If the write flag is "0", then the portable telephone set displays a warning of occurrence of an error in step 212 and then switches off the power supply in step 213. If the write flag is "1" in step 209, then the processing advances to step 210, in which the portable telephone set writes the backed up ROM

information into the corresponding block of the ROM section 1. (See, page 5, line 23 to page 6, line 6.)

In the present invention, since the program is arranged in accordance with the arrangement of the internal blocks of the ROM section 1, even the user can easily modify the software by storing a patch for the program in a unit of a block into the RAM section 2 and then rewriting the patch only for a block which includes the modified data from the RAM section 2 into the ROM section 1. Consequently, even when bugs are detected, the phone manufacturer need not perform a recall of the phones to fix the bug. (See, page 7, lines 13-22.)

Figure 3 shows a portable telephone set 31 being connected to a communication server 32 by radio or to a personal computer 33 of the user by a cable. The patch for fixing the bug can be read into the RAM of the portable telephone set 31 from the personal computer 33 or the like through an external interface of the portable telephone set 31. In the alternative, such a patch may be downloaded from a communication network through the communication server 32. Further, the RAM of the portable telephone set 31 can be used not only for bug fixation but also for expansion of functions of the portable telephone set 31. (See, page 8, line 23 to page 9, line 11.)

VI. GROUNDΣ OF REJECTION TO BE REVIEWED ON APPEAL

The Final Action rejected claims 3 to 12 under 35 U.S.C. § 103(a) over U.S. Patent No. 6,449,476 to Hutchison ("Hutchison") in view of U.S. Patent No. 6,622,017 to Hoffman ("Hoffman") and further in view of U.S. Patent No. 5,933,595 to Iizuka ("Iizuka").

VII. ARGUMENT

Applicant respectfully traverse the above rejection.

Independent claims 3, 8 and 9 each require loading a bug fix patch into a volatile memory and then creating a backup of the bug fix patch in the same volatile memory. Accordingly, each of the claims of the present application require two copies of the bug fix patch in the same volatile memory.

The Final Action acknowledges that Hutchison, Hoffman and the combination thereof do not show or suggest "*copying the software features into the volatile memory to create a backup software to be stored in the read only memory.*" (See Final Action at p. 3.) To cure the deficiencies of Hutchison and Hoffman, the Final Action cites Iizuka for its disclosure in the Background of the Invention.

Applicant respectfully submits that, even taken collectively, the above cited references Hutchison, Hoffman, and Iizuka do not disclose at least the above discussed element of the claimed invention. In the Background of the Invention portion of Iizuka relied on by the Final Action, a nonvolatile memory card is disclosed which stores a debugged control program. After the nonvolatile memory card is externally connected to the microcomputer, the debugged control program is read from the nonvolatile memory card and stored in the internal volatile RAM. The patch is then written from the volatile RAM into the flash ROM. Nowhere does Iizuka teach creating a backup copy of the patch in the volatile RAM, in addition to the copy read from the non-volatile memory card.

When Iizuka is combined with Hutchison and Hoffman as suggested in the Final Action, the combination thereof provides for only a single copy of the debugged control program stored in the internal volatile RAM. Therefore, the combination of the above cited references does not disclose creating a backup patch in the volatile memory by copying the patch already loaded in the volatile memory as recited in independent claims 3, 8, and 9. Consequently, even if the above references can be combined as

suggested in the Final Action, the combination does not disclose the claimed invention.

Therefore, the claimed invention is not obvious over the cited references.

Additionally, Applicant respectfully submits that there is no motivation in the cited references that they be combined to arrive at the claimed invention. In the Final Action, the Examiner stated that, when combining Iizuka with Hutchison and Hoffman to establish the *prima facie* obviousness case,

the Examiner only relies on Iizuka for the teaching of transferring or copying data software from a RAM to a ROM for fixing a portion of the ROM regardless of where the ROM and RAM located. (See Final Action at p. 6. Emphasis added.)

In response to the above proposition, Applicant first refers to Section 2141.02 of the Manual of Patent Examining Procedure (M.P.E.P.), which states that:

Prior art must be considered in its entirety, including disclosures that teach away from the claims.

In view of the above guidance from M.P.E.P., one must consider a prior art reference as a whole and cannot omit the portion in the prior art reference that would lead away from the claimed invention.

The Final Actions fails to observe the above guidance stated in M.P.E.P. when citing Iizuka to cure the deficiencies of Hutchison and Hoffman. Although the portion of Iizuka cited by the Final Action shows that data on an external RAM card can be transferred to a computer's internal RAM and subsequently transferred to internal ROM, the remainder of Iizuka explicitly teaches away from the cited portion. For example, Iizuka teaches *directly* transferring the data from the external RAM to the internal ROM, bypassing the internal RAM (see, e.g., column 4, lines 30-50; emphasis added). Iizuka also states that "[s]ince it is *unnecessary* to temporarily store the program written to the nonvolatile memory element in a memory such as a RAM, the nonvolatile memory may

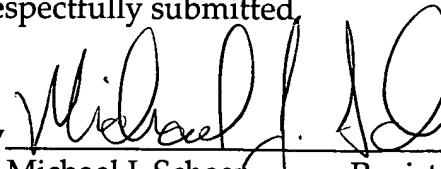
efficiently be rewritten." (See, id.) In other words, Iizuka teaches that *no* patch at all is to be stored to internal RAM, much less a backup patch, because the patch is transferred directly from the external RAM to the ROM. Such teachings of Iizuka is in direct contrast to the explicit limitations of independent claims 3, 8 and 9, which require "*copying the patch into the volatile memory to create a backup patch.*"

Therefore, Applicant respectfully submits that when the cited prior art is considered in its entirety, there is no suggestion or motivation in the cited references to combine them in order to arrive at the claimed invention. Accordingly, a *prima facie* case of obviousness has not been made. (M.P.E.P. § 2143.) Moreover, the fact that the cited portion of Iizuka appears in its Background of Invention makes such cited portion less likely to be followed by one skilled in the art when contemplating the claimed invention. Therefore, if anything, Iizuka teaches away from a motivation to combine.

For at least the foregoing reasons, independent claims 3, 8 and 9 are believed to be clearly patentable over the cited references and reversal of the rejection is hereby respectfully requested.

Dated: October 17, 2005

Respectfully submitted,

By 
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Appendices A - C

APPENDIX A

The following claims are involved in the Appeal of Application Serial No. 09/878,107:

Claims 1-2 (Cancelled)

3. A portable telephone in which bugs in the main program of the portable telephone can be corrected, the telephone comprising:

a read only memory in which a main program for the portable telephone is stored;

a volatile memory;

means for loading a patch into the volatile memory, the patch intended to be substituted for a portion of the main program which portion contains a bug; and

means for copying the patch into the volatile memory to create a backup patch to be stored in the read only memory.

4. The portable telephone of claim 3, further comprising means for replacing the portion of the main program which contains the bug with the backup patch.

5. The portable telephone of claim 4, further comprising means for erasing the backup patch after it has replaced the portion of the main program which contained the bug.

6. The portable telephone of claim 3, wherein the main program stored in read only memory is stored in blocks.

7. The portable telephone of claim 6, wherein the main program stored in read only memory is rewritable in units of a block.

8. A portable telephone in which bugs in the main program of the portable telephone can be corrected, the telephone comprising:

a read only memory in which a main program for the portable telephone is stored;

a volatile memory;

means for loading a patch into the volatile memory, the patch being used to correct a bug in the main program; and

means for copying the patch into the volatile memory to create a backup patch, the backup patch being used to correct the bug in the read only memory.

9. A method for correcting bugs in a main program of a portable telephone stored in read only memory, the method comprising:

periodically executing at least a portion of the main program;

loading a patch which corrects a bug in the main program into the volatile memory;

copying the patch into the volatile memory to create a backup patch; and

substituting at least a portion of the main program stored in the read only memory of the telephone with the backup patch.

10. The method according to claim 9, wherein the backup patch is erased after it has replaced the portion of the main program which contained the bug.

11. The method according to claim 9, wherein the patch is transmitted to the portable telephone from a communications network.

12. The method according to claim 9, wherein the patch is transmitted to the portable telephone from a personal computer.

APPENDIX B - EVIDENCE

No evidence pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

APPENDIX C - RELATED PROCEEDINGS

No related proceedings are referenced in Section II above, or copies of decisions in related proceedings are not provided, hence no Appendix is included.